

applicants' admitted prior art (APA).

Claims 4 and 7 were rejected under 35 USC §103(a) as being unpatentable over the APA.

Applicants respectfully submit that each of claims 1-7, as submitted herein, recites subject matter which is neither disclosed nor suggested in the APA.

Amended claim 1, upon which claims 2-7 depend, recites a semiconductor device comprising a semiconductor substrate of a first conduction type. A buried semiconductor layer of a second conduction type is formed in a first region of the semiconductor substrate, spaced from a surface of the semiconductor substrate. A semiconductor region of the second conduction type extends from the surface of the semiconductor substrate to a peripheral portion of the buried semiconductor layer. A semiconductor region of the first conduction type is formed in the semiconductor substrate surrounded by the buried semiconductor layer and the semiconductor region of the second conduction type. A concentration of an impurity of the semiconductor region of the first conduction type is almost equal to a concentration of an impurity of the semiconductor substrate.

Applicants respectfully submit that the cited prior art does not teach or suggest a concentration of an impurity of the semiconductor region of the first conduction type is almost equal to a concentration of an impurity of the semiconductor substrate, as recited in claim 1. The novel arrangement of elements in the present invention provides a semiconductor device having a small leakage current from the capacitor through the junction between the source/drain diffused layer of the transistor cell unit and the first conduction type semiconductor. Therefore, frequent rewriting operations are unnecessary for retaining a charge on the capacitor and the semiconductor device of the presently

claimed invention operates more efficiently than the prior art. Thus, the present invention requires smaller amounts of electricity to operate and realizes an energy savings.

The APA depicts a semiconductor device including a p-well 164 formed by implanting a high concentration of a p-impurity in a part of a n-well 138 doped with an n-impurity. As a result of this configuration, a leakage current from the capacitor 154 through the junction between the source/drain diffused layer 150a, 150b of the transistor 148 of the cell unit 146 and the p-well is great. Consequently, rewriting operations must be frequently performed to maintain a charge on the capacitor 154, which increases power consumption. Therefore, applicants respectfully submit that the semiconductor device of the APA does not include all of the claimed features of the one of the present invention.

Applicants respectfully submit that independent claim 1 recites features which are neither disclosed nor suggested in the cited prior art. Applicants submit that since the prior art does not teach or suggest all of the claimed elements of the present invention, it cannot be properly used to reject the claims of the present invention under either section 102 or 103. In that claims 2-7 depend upon claim 1 and recite additional limitations, it is respectfully submitted that all of the pending claims recite subject matter which is neither disclosed nor suggested by the cited prior art. Applicants therefore request reconsideration and withdrawal of these rejections. Applicants respectfully request that all of claims 1-7 be found allowable, and this application be passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 01-2300.

Respectfully submitted,

ARENT FOX KINTNER PLOTKIN KAHN PLLC

A handwritten signature in black ink, appearing to read 'B. Goldizen', is written over a horizontal line.

Bradley D. Goldizen
Attorney for Applicants
Reg. No. 43,637

Atty. Docket No. 108077-08003

1050 Connecticut Avenue, N.W.
Suite 600
Washington, D.C. 20036-5339
Tel (202) 857-6000
Fax (202) 638-4810